

#### REMARKS/ARGUMENTS

Reconsideration and withdrawal of the Examiner's rejection of the above-identified application is respectfully requested in view of the foregoing amendments and following remarks. Claims 16-34 are in the application. Claims 17-21, 23-26, and 29-30 have been amended. Claim 34 has been added. No new matter has been added.

Applicant appreciates the courtesy extended by the Examiner to the undersigned during the telephone interview of February 24, 2010. The substance of the interview is contained in the remarks below.

The Examiner rejected claims 29 and 30 under 35 U.S.C. §112 for being indefinite. Applicant has amended claim 29 to delete "spray compacting step" and replace it with "producing step". The Examiner also rejected claim 30 under 35 U.S.C. §112, first paragraph, for the phrase "traces of beryllium". Applicant has amended claim 30 to recite "50 ppm of beryllium".

The Examiner rejected claims 16, 18, 19 and 21-27 under 35 U.S.C. §103(a) as being unpatentable over *Lee et al. U.S. Patent*

No. 6,419,769 in view of *Schmid et al.* U.S. Patent No. 5,178,686 and further in view of Volume 14 of the 1988 9<sup>th</sup> Edition ASM Handbook. Claims 17 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Lee et al.* and *Schmid et al.* and Volume 14 of the 1988 9<sup>th</sup> Edition ASM Handbook and in further view of Volume 7 of the 1998 9<sup>th</sup> Edition ASM Handbook. Claims 31-33 were rejected as being unpatentable over *Adam et al.*

The Examiner stated that claim 20 would be allowable if rewritten in independent form, and that there were no prior art rejections regarding claims 29 and 30.

Applicant has amended claim 20 to include the elements of claim 16. Claims 17-19 and 21-27 all now depend from claim 20.

Regarding claim 16, the Examiner combines the teachings of *Lee et al.* and the teaching of *Schmidt* to find a range of material compositions including the composition of the claimed method. This is done although *Lee et al.* teaches away from *Schmidt* because an aluminum alloy with a significantly higher level of magnesium in the aluminum alloy will result in a lower

strength. Therefore, a person skilled in the art would not combine a material containing a high level of magnesium as claimed in claim 16 with the heat treatment steps of Lee et al. Additionally, the base alloy claimed in claim 16 is further processed by the steps of hot forming and subsequent heat treatment.

Neither Lee et al. nor Schmid teaches a hot forming step and subsequent heat treatment steps to further refine the properties of the hot formed alloy. Also, Schmid gives no suggestion of which specific heat treatment should be used.

To reject claim 16, the Examiner combines the teachings of Lee et al. and Schmid with Vol. 14 of the 1988 9th Edition ASM Handbook. The examiner mentions p. 241-244 of Vol. 14, supposedly suggesting the hot forming step followed by the heat treatment steps. The argument is respectfully traversed. As stated in the response filed on September 4, 2009, Volume 14 does not suggest a step of hot forming before the heat treatment steps. In fact Volume 14 teaches that "a variety of shapes and types of forgings with a broad range of final part forging design criteria" (p. 241, 1.3). This reference was discussed in the telephone interview, and Applicant requests that

the Examiner point out the respective passage or paragraph stating that a hot forming step is suggested to be carried out before the heat treatment steps.

In foresight of a citation of Vol. 15 of the 1988 9th Edition ASM Handbook, the following is stated: A person skilled in the art might consider Volume 15 of the 1988 9th Edition ASM Handbook which teaches methods of continuous casting and chill casting. However, Volume 15 does not suggest any further steps for further processing the cast materials. In fact, Volume 15 suggests the possibility of heat treatment directly after the casting process step. Thus, Volume 14 and 15 both teach away from a hot forming step followed by heat treatment steps as claimed in claim 16.

Claim 28 was rejected over a combination of Schmid, Lee et al. and ASM Handbook Volumes 14 and 7. The arguments of the Examiner are respectfully traversed. Neither Schmid nor Lee et al. nor the ASM Handbook Volume 14 show a method comprising a step of spray compacting of the aluminum alloy, subsequently conducting a hot forming step and finally conducting a heat treatment step.

Nor does Volume 7 of the ASM Handbook reveal or hint to such a step. Therefore, the claimed method according to claim 28 is patentable over the cited references.

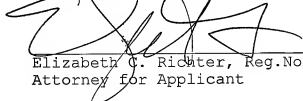
Regarding claims 31-33, the rejections of the Examiner are respectfully traversed. Adam suggests an aluminum alloy containing at least one of the group of Fe, Co, Ti, V, Ni, Zr, Cu, Mg and Mn with a wt-% of 2.1 to 20 and an aluminum balance. The claimed alloys of claim 31, however, all contain less than 2.1 wt-% Fe, and L1 and L3 contain less than 2.1 wt-% Cu. Therefore the claimed alloys according to claim 31 are patentable over Adam et al.

Claim 34 was added based on claim 16, wherein the content of magnesium (wt-%) exceeding a value of  $1.73 \times \text{Si}$  is between 1.5 and 3.2. The claimed alloy of claim 34 is not within the suggested range of Schmid, because Schmid mentions a very broad range of aluminum alloys including an addition of magnesium, but suggests to preferably add an amount of 5 to 12 wt.-% of magnesium to the alloy. This teaches away from the invention, since the addition of magnesium according to the examples in the invention ranges from 2.1 (example 2) to 3.2

(example 1), which is a much lower amount for a secondary additional component.

In view of the foregoing, it is respectfully requested that the claims be allowed and that this application be passed to issue.

Respectfully submitted,  
Ulrich BISCHOFBERGER

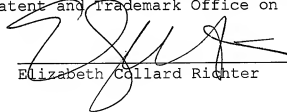


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I hereby certify that this correspondence is being filed electronically in the U.S. Patent and Trademark Office on February 24, 2010.



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